

FINAL ANSWER KEY

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Question1:-Which among the following is not a fundamental right?

- A:-Right to equality
- B:-Right against exploitation
- C:-Right to freedom of religion
- D:-Right to acquire wealth

Correct Answer:- Option-D

Question2:-The union list given in _____ schedule of Indian Constitution.

- A:-5th schedule
- B:-6th schedule
- C:-7th schedule
- D:-8th schedule

Correct Answer:- Option-C

Question3:-The objective of Pradhan Mantri Kaushal Vikas Yojana is _____

- A:-Skill training to youth
- B:-Eradication of urban unemployment
- C:-Basic education to rural children
- D:-Employment guarantee to women

Correct Answer:- Option-A

Question4:-Who among the following is not related to 'Mappilapattu'?

- A:-Moyinkutty Vaidyar
- B:-Edarikkode Alikutty Kurikkal
- C:-O.M. Karuvarakundu
- D:-Chakkeeri Moideenkutty

Correct Answer:- Option-B

Question5:-Who won the 'Man Booker Prize 2018'?

- A:-Anna Burns
- B:-Richard Powers
- C:-Daisy Johnson
- D:-Chethan Bagath

Correct Answer:- Option-A

Question6:-Who was the Indian flag bearer of 2018 common wealth games closing ceremony?

- A:-P.V. Sindhu
- B:-Abhinav Bindra
- C:-Jeenson Joseph
- D:-Mary Kom

Correct Answer:- Option-D

Question7:-Who is the author of 'Aarachaar'?

- A:-Sara Joseph
- B:-Subash Chandran
- C:-K.R. Meera
- D:-M. Mukundan

Correct Answer:- Option-C

Question8:-Who is the author of 'Muslim Janavum Vidyabhyasavum' (Muslims and Education)

- A:-Vakkom Moulavi
- B:-Makthi Thangal
- C:-K.M. Moulavi
- D:-E.K. Aboobacker Musliyar

Correct Answer:- Option-B

Question9:-Name the Malayali woman congress leader imprisoned along with her two month old baby during civil disobedience movement

- A:-Kuttimalu Amma
- B:-Akkama Cheriyan
- C:-Arya Pallam
- D:-Lalitha Prabhu

Correct Answer:- Option-A

Question10:-How many people signed in Ezhava memorial?

- A:-11218
- B:-12178
- C:-13276
- D:-13176

Correct Answer:- Option-D

Question11:-Who started the daily 'Paschimodayam'?

- A:-Benjamin Baily
- B:-Hermen Gundert
- C:-K.P. Kesava Menon
- D:-Mamman Mappila

Correct Answer:- Option-B

Question12:-Who is the founder of 'Samatwa Samajam'?

- A:-Sri Narayana Guru
- B:-Ayyankali
- C:-Vaikunda Swamikal
- D:-Sahodaran Ayyappan

Correct Answer:- Option-C

Question13:-Who was the first signatory of 'Malayali Memorial'?

- A:-K.P. Sankara Menon
- B:-G.P. Pillai
- C:-Dr. Palpu
- D:-C. Kesavan

Correct Answer:- Option-A

Question14:-Mampuram Thangal came to India from _____

- A:-Saudi Arabia
- B:-Yemen
- C:-Iraq
- D:-Egypt

Correct Answer:- Option-B

Question15:-Who is the lone dissenter of Sabarimala temple women entry verdict of supreme court?

- A:-Dipak Misra
- B:-R.F. Nariman
- C:-A.M. Khawilkar
- D:-Indu Malhotra

Correct Answer:- Option-D

Question16:-Who issued temple entry proclamation?

- A:-Swathi Thirunal
- B:-Sri Moolam Thirunal
- C:-Sri Chithira Thirunal
- D:-Ayilyam Thirunal

Correct Answer:- Option-C

Question17:-Which among the following was 'Melmundu Samaram'?

- A:-Paliyam Satyagraha
- B:-Kuttamkulam Satyagraha
- C:-Vaikom Satyagraha
- D:-Shanar Agitation

Correct Answer:- Option-D

Question18:-Who is known as the father of library movement in Kerala?

- A:-K.M. Panikkar
- B:-K.N. Panikkar
- C:-P.N. Panikkar

D:-K.P. Panikkar

Correct Answer:- Option-C

Question19:-Who is the author of the drama, 'Koottukrishi'?

A:-M.P. Battathiripad

B:-Edasseri Govindan Nair

C:-K. Damodaran

D:-V.T. Battathiripad

Correct Answer:- Option-B

Question20:-Who among the following is not included modern Triumvirate of Malayalam poetry?

A:-Cherusseri

B:-Kumaran Asan

C:-Vallathol

D:-Ulloor

Correct Answer:- Option-A

Question21:-Let A, B and C are three finite sets. Find |A| if $|A| = |B|$, $|A \cup B| = 2a + 3b$, and $|A \cap B| = b$

A:- $a+2b$

B:- $2a+b$

C:- $2a+2b$

D:- $a+b$

Correct Answer:- Option-A

Question22:-Let $X = \{2, 3, 6, 12, 24, 48\}$, and \leq be the partial order defined by $X \leq Y$ if X divides Y. Number of edges in the Hasse diagram of (X, \leq) is

A:-4

B:-6

C:-5

D:-8

Correct Answer:- Option-C

Question23:-A box contains 8 red and 6 yellow balls. The probability of drawing two balls of the same colour is

A:- $42/98$

B:- $43/95$

C:- $43/91$

D:-None of the above

Correct Answer:- Option-C

Question24:-A die is tossed. If the number is odd, what is the probability that the number is prime?

A:- $1/3$

B:- $2/3$

C:- $4/3$

D:- $3/4$

Correct Answer:- Option-B

Question25:-Let $P(K)=1+3+5+\dots+(2K-1)=3+K^2$. Then which of the following is true?

A:-Principle of mathematical induction can be used to prove the formula

B:- $P(1)$ is correct

C:- $P(k)$ implies $P(k+1)$

D:-None of the above

Correct Answer:- Option-C

Question26:-Three bags P, Q and R contains 20%, 40% and 40% of the total eggs produced in an industry. Past experience shows that 5%, 4% and 2% of the eggs contained in the respective bags are defective. If an egg was found to be defective, what is the the probability that the egg was from the bag P?

A:- $10/36$

B:- $8/36$

C:- $10/34$

D:- $4/35$

Correct Answer:- Option-C

Question27:-For the set $\{1, 2, 3, 4\}$, which of the following is true for the relation $R = \{(1,3), (1,4), (2,3), (2,4), (3,1), (4,1), (4,2), (3,4), (3,2)\}$

A:-R is symmetric

B:-R is transitive

C:-R is antisymmetric

D:-None of the above

Correct Answer:- Option-D

Question28:-A correlation coefficient of 1 means that

- A:-For every positive increase in one variable, there is a positive increase in a fixed proportion of the other variable
- B:-For every positive increase in one variable, there is a negative decrease in a fixed proportion of the other variable
- C:-For every positive increase in one variable, there is no change in a fixed proportion of the other variable
- D:-There is no relation between the variables

Correct Answer:- Option-A

Question29:-Multiple regression is used

- A:-To predict scores on an independent variable from scores on multiple dependent variables
- B:-To predict scores on an dependent variable from scores on multiple dependent variables
- C:-To predict scores on an dependent variable from scores on multiple independent variables
- D:-To predict scores on an independent variable from scores on multiple independent variables

Correct Answer:- Option-C

Question30:-Which of the following is not true when conducting multiple regression?

- A:-Data must be free from outliers for a multiple regression
- B:-Data must be heterogeneous for a multiple regression
- C:-Multiple regression can be used to access linear relationships
- D:-Data must be normally distributed for multiple regression

Correct Answer:- Option-B

Question31:-As compared to TTL, CMOS logic has

- A:-Higher speed of operation
- B:-Higher power dissipation
- C:-Smaller physical size
- D:-All of the above

Correct Answer:- Option-C

Question32:-Pin 21 of 8086 microprocessor is used for the signal

- A:-READY
- B:-ALE
- C:-RESET
- D:-QS1

Correct Answer:- Option-C

Question33:-Assume that the following jobs are to be executed on a single processor system

Job identifier	CPU-Burst Time
P1	4
P2	1
P3	8
P4	1
P5	2

The jobs are assumed to have arrived at time 0 and in the order P1, P2, P3, P4, P5. Calculate the departure completion time for job P1 if scheduling is round robin with time slice 1.

- A:-4
- B:-10
- C:-12
- D:-11

Correct Answer:- Option-D

Question34:-The Banker's algorithm is used

- A:-To prevent deadlock in operating systems
- B:-To detect deadlock in operating systems
- C:-To avoid deadlock in operating systems
- D:-All of the above

Correct Answer:- Option-C

Question35:-The performance of a digital computer improves when its RAM size increases. This is because

- A:-Size of virtual memory increases
- B:-Number of page faults are less
- C:-Larger RAMS are very faster
- D:-Number of segment faults are less

Correct Answer:- Option-B

Question36:-Multiplier Quotient register is placed in

- A:-Main Memory
- B:-CPU

C:-I/O Equipment

D:-None of these

Correct Answer:- Option-B

Question37:-Which of the following is/are not true in contiguous allocation of disk space

A:-Size of the file is to be declared in advance

B:-There is no external fragmentation

C:-Difficulty in finding space for a new file

D:-Both 2 and 3

Correct Answer:- Option-B

Question38:-Interrupt latency for real time OS should be

A:-Maximum

B:-Zero

C:-Minimal

D:-None of the above

Correct Answer:- Option-C

Question39:-Which of the following is an invalid shell variables?

A:-india_15

B:-_15_india

C:-15_india

D:-Both 2 and 3

Correct Answer:- Option-C

Question40:-The output of the following shell programming is

```
var_1 = good
```

```
Readonly var_1
```

```
var_1= morning
```

```
echo $var_1
```

```
exit 0
```

A:-good

B:-morning

C:-program will generate an error message

D:-none of the above

Correct Answer:- Option-C

Question41:-The time complexity of building a heap with 'n' elements is

A:- $O(n)$

B:- $O(\log n)$

C:- $O(n^2)$

D:- $O(n \log n)$

Correct Answer:- Option-A

Question42:-Which of the following is false regarding AVL trees?

A:-AVL tree is more balanced than binary search tree

B:-AVL tree is more space efficient than binary search tree

C:-AVL tree is more time efficient than binary search tree

D:-None of the above

Correct Answer:- Option-B

Question43:-What is the worst case complexity of quicksort?

A:- $O(n \log n)$

B:- $O(n)$

C:- $O(n^2)$

D:- $O(\log n)$

Correct Answer:- Option-C

Question44:-Which data structure can be used to efficiently implement dijkstra's algorithm?

A:-Double ended queue

B:-Priority queue

C:-Stack

D:-Binary search tree

Correct Answer:- Option-B

Question45:-Which data structure is well suited for separate chaining?

A:-Singly linked list

B:-Doubly linked list

C:-Circular linked list

D:-Binary trees

Correct Answer:- Option-B

Question46:-In the following code, how many times the program will print "Hello"?

```
#include<stdio.h>
int main()
{
    printf("Hello");
    main();
    return 0;
}
```

A:-Infinite times

B:-32767 times

C:-65535 times

D:-till stack overflows

Correct Answer:- Option-D

Question47:-What will be output if you will compile and execute the following c code?

```
#include "string.h"
void main()
{
    printf("%d%d",sizeof("program"),strlen("program"));
    getch();
}
```

A:-8 7

B:-7 8

C:-8 8

D:-7 7

Correct Answer:- Option-A

Question48:-Predict the outputs of following C program.

```
int main()
{
    int x = -20;
    while (x++ !=1);
    printf("%d", x);
    return 0;
}
```

A:-2

B:-1

C:--1

D:-infinite

Correct Answer:- Option-A

Question49:-What is the return type of malloc()?

A:-void*

B:-pointer of allocated memory type

C:-void**

D:-int*

Correct Answer:- Option-A

Question50:-What does the following declaration mean?

```
int (*ptr)[20];
```

A:-ptr is array of pointers to 20 integers

B:-ptr is a pointer to an array of 20 integers

C:-ptr is an array of 20 integers

D:-None of these

Correct Answer:- Option-B

Question51:-If class C is derived from another class B which is derived from class A, which class will have minimum level of abstraction?

A:-Class A

B:-Class B

C:-Class C

D:-All have same level of abstraction

Correct Answer:- Option-C

Question52:-Which of the following statement is false?

- A:-An abstract class is a class which cannot be instantiated
- B:-Creation of an object is not possible with abstract class but it can be inherited
- C:-An abstract class can contain only Abstract method
- D:-None of these

Correct Answer:- Option-C

Question53:-Which is the necessary condition for virtual function to achieve late binding?

- A:-Virtual function is to be accessed with direct name
- B:-Virtual functions is to be accessed using base class object only
- C:-Virtual function is to be accessed using pointer or reference
- D:-Virtual function is to be accessed using derived class object only

Correct Answer:- Option-C

Question54:-Operator overloading is

- A:-Making c++ operator works with objects
- B:-Giving new meaning to existing operator
- C:-Adding operation to the existing operators
- D:-All the above

Correct Answer:- Option-D

Question55:-What are all the operators that cannot be overloaded?

- A:-Scope Resolution (::)
- B:-Member Selection (.)
- C:-New operator (new)
- D:-Both 1 and 2

Correct Answer:- Option-D

Question56:-Which two of the following methods are defined in class Thread?

- A:-Start and wait
- B:-Start and run
- C:-Wait and notify
- D:-Start Only

Correct Answer:- Option-B

Question57:-Which of these class object cannot be used to form a dynamic array in JAVA?

- A:-ArrayList
- B:-Map
- C:-Vector
- D:-ArrayList and Vector

Correct Answer:- Option-B

Question58:-Predict the output of the following code

```
public class Check
{
public static void main(String args[])
{
String s1 = "test";
String s2 = new String(s1);
System.out.println(s1==s2);
}
}
```

- A:-true
- B:-false
- C:-0
- D:-test

Correct Answer:- Option-B

Question59:-In java applet programs, the applet life cycle functions are called in which order?

- A:-start(), init(), paint(), destroy(), stop()
- B:-init(), run(), start(), stop(), destroy()
- C:-init(), start(), paint(), stop(), destroy()
- D:-start(), run(), paint(), destroy(), stop()

Correct Answer:- Option-C

Question60:-The three notion of java virtual machine are

- A:-class, object, variable
- B:-specification, implementation, instance
- C:-primitive, referential, user defined

D:-byte code, object code, executable

Correct Answer:- Option-B

Question61:-Collection of entities that have the same attributes are called

A:-Domain

B:-Value set

C:-Entity set

D:-Entity type

Correct Answer:- Option-D

Question62:-Which of the following key is related with referential integrity constraint?

A:-Primary key

B:-Candidate key

C:-Foreign key

D:-Super key

Correct Answer:- Option-C

Question63:-Consider the following table of data r(R) of the relation schema R(XYZ)

X	Y	Z
x1	y1	z1
x2	y1	z1
x3	y2	z1

Which of the following functional dependency sets are valid

A:-X->Y, Y->Z, Z->X

B:-X->Y, X->Z, Y->Z

C:-Both 1 and 2

D:-None of the above

Correct Answer:- Option-B

Question64:-The SQL aggregate function that returns number of values in a given column is

A:-count()

B:-count(*)

C:-sum()

D:-All of the above

Correct Answer:- Option-A

Question65:-Which of the following construct returns true if a given tuple is not present in the subquery

A:-exists

B:-not present

C:-not exists

D:-none of the above

Correct Answer:- Option-C

Question66:-What will be the output of the following query?

```
CREATE EmployeeView VIEW AS SELECT nothing FROM Employee WHERE ID < 100
```

A:-EmployeeView will be created with no columns

B:-EmployeeView will be created with column nothing

C:-Syntax error

D:-None of the above

Correct Answer:- Option-C

Question67:-Consider a relation A with m rows and relation B with n rows. How many rows will be generated if A × B is performed?

A:-m

B:-m + n

C:-m - n

D:-m * n

Correct Answer:- Option-D

Question68:-_____ is the statement which specifies when the trigger is to be executed.

A:-From

B:-Where

C:-When

D:-None of the above

Correct Answer:- Option-C

Question69:-Which of the following is true about Atomicity?

- A:-Smallest unit of transaction
- B:-Either all of its operations are executed or none
- C:-Atleast one of the operation should be executed
- D:-All of the above

Correct Answer:- Option-B

Question70:-Which of the following differentiates Two-Phase Locking with Strict Two-Phase Locking in Concurrency control?

- A:-Release locks after usage
- B:-Release locks at commit
- C:-Cascading aborts
- D:-None of the above

Correct Answer:- Option-B

Question71:-The middle layer of a three layer client/server architecture is called

- A:-Presentation layer
- B:-Application layer
- C:-Database layer
- D:-None of the above

Correct Answer:- Option-B

Question72:-Which of the following element in CSS allows authors to use external style sheets in their pages?

- A:-position
- B:-span
- C:-extern
- D:-link

Correct Answer:- Option-D

Question73:-Which of the following object displays prompt dialog in JavaScript?

- A:-alert
- B:-prompt
- C:-document
- D:-window

Correct Answer:- Option-D

Question74:-A technology for locating information in an XML document is

- A:-xPath
- B:-XSL
- C:-MathML
- D:-All of the above

Correct Answer:- Option-A

Question75:-The method used in PHP to transfer binary data from client to server is

- A:-GET
- B:-POST
- C:-Both 1 and 2
- D:-None of the above

Correct Answer:- Option-B

Question76:-The directive used to specify information needed by ASP.NET to process an ASPX file

- A:-Page
- B:-Register
- C:-Import
- D:-Master

Correct Answer:- Option-A

Question77:-Which object in AJAX applications manage asynchronous interaction with the server?

- A:-HttpURLConnection
- B:-HttpRequest
- C:-XMLHttpRequest
- D:-All of the above

Correct Answer:- Option-C

Question78:-Cross-Site Scripting attacks are normally initiated by

- A:-Web Client
- B:-Web Server
- C:-Both 1 and 2
- D:-None of the above

Correct Answer:- Option-A

Question79:-Which of the following in ASP.NET is a data source control method?

- A:-ExecuteReader
- B:-SqlDataReader
- C:-SqlCommand
- D:-SqlConnection

Correct Answer:- Option-D

Question80:-Which of the following function is used to exit from a PHP Script?

- A:-exit()
- B:-die()
- C:-both 1 and 2
- D:-none of the above

Correct Answer:- Option-C

Question81:-Which one among the following is a private IP address?

- A:-11.0.0.1
- B:-168.172.29.41
- C:-172.15.24.33
- D:-192.168.24.40

Correct Answer:- Option-D

Question82:-Which layer in the TCP/IP stack is equivalent to the Transport layer in the OSI model?

- A:-Application
- B:-Host-to-Host
- C:-Internet
- D:-Network Access

Correct Answer:- Option-B

Question83:-Which among the following describes the DHCP Discover message?

- i. It uses FF:FF:FF:FF:FF:FF as a layer 2 broadcast
- ii. It uses UDP as the Transport layer protocol
- iii. It uses TCP as the Transport layer protocol
- iv. It does not use a layer 2 destination address

- A:-i only
- B:-i and ii
- C:-iii and iv
- D:-iv only

Correct Answer:- Option-B

Question84:-Among the following IP address classes, which one provides a maximum of only 254 host addresses per network ID?

- A:-Class A
- B:-Class B
- C:-Class C
- D:-Class D

Correct Answer:- Option-C

Question85:-You have an IP address of 172.16.13.5 with a 255.255.255.128 subnet mask. What is your class of address, subnet address, and broadcast address?

- A:-Class A, Subnet 172.16.13.0, Broadcast address 172.16.13.127
- B:-Class B, Subnet 172.16.13.0, Broadcast address 172.16.13.127
- C:-Class B, Subnet 172.16.13.0, Broadcast address 172.16.13.255
- D:-Class B, Subnet 172.16.0.0, Broadcast address 172.16.255.255

Correct Answer:- Option-B

Question86:-You have an interface on a router with the IP address of 192.168.192.10/29. Including the router interface, how many hosts can have IP addresses on the LAN attached to the router interface?

- A:-32
- B:-30
- C:-8
- D:-6

Correct Answer:- Option-D

Question87:-The number of unique substitution boxes in DES after the 48 bit XOR operation are

- A:-4
- B:-6
- C:-8

D:-12

Correct Answer:- Option-C

Question88:-For `p=11` and `q=17`, choose `e=7`. Find the plain text for the Cipher text 11 using the RSA algorithm

A:-88

B:-111

C:-122

D:-143

Correct Answer:- Option-A

Question89:-Which of the following is true about HTTP headers and connection management?

A:-All HTTP responses must either close a connection or include a Content-Length:header to signify to end of a HTTP response body

B:-The Host : field in HTTP allows the same web server to server content for multiple domains

C:-When transferring many small Web objects, the only performance difference between persistent and non-persistent HTTP connections is related to connection establishment

D:-HTTP headers have a fixed size

Correct Answer:- Option-B

Question90:-Which of the following about UNIX socket programming is true?

i. When a TCP sender calls close(), the network stack immediately sends a FIN packet to its peer

ii. send() on a TCP socket causes a sender to generate a TCP/IP packet and send it out the appropriate network interface

iii. accept() returns when the receiver completes the three-way TCP handshake

iv. The return value of recv() specifies the number of bytes read from a socket, or if the socket was closed or an error was encountered

A:-i only

B:-i and ii

C:-iii and iv

D:-iv only

Correct Answer:- Option-C

Question91:-COCOMO stands for

A:-Consumed Cost Model

B:-Constructive Cost Model

C:-Common Control Model

D:-Composition Cost Model

Correct Answer:- Option-B

Question92:-Which of the following is not defined in a good Software Requirement Specification (SRS) document?

A:-Functional Requirement

B:-Nonfunctional Requirement

C:-Goals of implementation

D:-Algorithm for software implementation

Correct Answer:- Option-D

Question93:-Software process and improvement are assessed by

A:-ISO 9000

B:-ISO 9001

C:-SPICE (ISO/IEC15504)

D:-Both 2 and 3

Correct Answer:- Option-D

Question94:-CMM model in Software Engineering is a technique of

A:-Develop the software

B:-Improve the software process

C:-Improve the testing process

D:-All of the above

Correct Answer:- Option-B

Question95:-Alpha and Beta Testing are forms of

A:-Acceptance testing

B:-Integration testing

C:-System testing

D:-Unit testing

Correct Answer:- Option-A

Question96:-Coupling and cohesion can be represented using a

A:-cause-effect graph

B:-dependence matrix

C:-structure chart

D:-SRS

Correct Answer:- Option-B

Question97:-The tests that run every night during the project development or before a programmer checks in any changes to the global repository are normally characterized as

A:-Integration tests

B:-Regression tests

C:-Validation tests

D:-System tests

Correct Answer:- Option-B

Question98:-Which of the following reason is valid ones for choosing a top-down process?

A:-Developers can present a demo of the project to the management faster than using a bottom-up process

B:-A top-down process is more time consuming because of the unit tests

C:-In a top-down design, if an error is detected its always because a lower-level module is not meeting its specifications (because the higher-level ones are already been tested)

D:-A top-down process makes it possible to detect performance problems faster

Correct Answer:- Option-A

Question99:-Consider the following statements

(i) Bottom-up testing is not an effective way to reveal architectural design flaws.

(ii) Top-down testing can be time-consuming, because you need to write stubs for many modules.

A:-Only (i) is true

B:-Only (ii) is true

C:-Both (i) and (ii) are true

D:-Both (i) and (ii) are false

Correct Answer:- Option-C

Question100:-Consider the following statements

(i) When designing tests, if partitions are chosen perfectly, there is no point to testing boundary values near the edges of the partition.

(ii) Glass-box tests designed for one implementation are valid to use when testing another implementation.

A:-Only (i) is true

B:-Only (ii) is true

C:-Both (i) and (ii) are true

D:-Both (i) and (ii) are false

Correct Answer:- Option-C